

IN THE UNITED STATES PATENT & TRADEMARK OFFICE

Application Number : (unassigned)  
Applicant : Kyu Seo HAN, et al.  
Filed : April 22, 2005  
Tech Cntr/AU : (unassigned)  
Examiner : (unassigned)  
Entitled : METHOD AND APPARATUS FOR MOTION ESTIMATION  
USING ADAPTIVE SEARCH PATTERN FOR VIDEO  
SEQUENCE COMPRESSION  
Attorney Reference : 122991-05050635  
Customer Number : 43569

**MAIL STOP PCT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

**INFORMATION DISCLOSURE STATEMENT UNDER 37 C.F.R. §1.97**

Sir:

Pursuant to 37 CFR §1.97 and 1.56, the attention of the U.S. Patent and Trademark Office is hereby directed to the following disclosures made herein, which include:

**REFERENCES AND RELEVANCY**

- ☒ Applicant(s) wish(es) to make of record the documents listed on the attached Form PTO-1449. Copies of the listed documents are attached, where required, as are any readily available full or partial English translations of any non-English language documents.
- ☐ Applicant(s) wish(es) to make of record the documents listed on the attached Form PTO-1449. The references cited herein were cited for consideration in the parent application, and, pursuant to 37 CFR 1.98(d), copies of the cited references can be found in the file of the parent application (*U.S. Serial No. , filed* ).
- ☒ Applicant(s) wish(es) to make of record the documents listed on the attached Form PTO-1449. The references cited herein were cited in the International Search Report issued for the corresponding International application, and copies of the International Search Report and the cited references are attached for the Examiner's consideration.
- ☐ Applicant(s) wish(es) to make of record the documents listed on the attached Form PTO-1449. The references cited herein were cited in a communication from a foreign or international patent office in a counterpart foreign or international application(s), and copies of both the relevant communication and the cited references, where required, are attached for the Examiner's consideration.

## CERTIFICATION

The undersigned certifies that, pursuant to 37 CFR §1.97(e)(1),

- ☐ each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign or international patent office in a counterpart foreign or international application not more than three months prior to the filing of this Statement.

## RELATED CASES

- ☐ Identified in the attached Appendix are related applications directed to related technical subject matter. Copies of the related applications, where required, are attached for the Examiner's consideration. *The identification of the related U.S. patent applications is not to be construed as a waiver of secrecy for those applications, now or upon issuance of the present application as a patent.*

## BASIS FOR CONSIDERATION

This Information Disclosure Statement is filed:

- ☒ within three months of the filing date of the application and/or before the mailing date of a first Official Action on the merits, and no fee is required [37 C.F.R. §1.97(b)].
- ☐ with the appropriate certification, and no fee is required [37 C.F.R. §1.97(e)(1)].
- ☐ after the mailing date of the first Official Action on the merits, but prior to the issuance of a Notice of Allowance, and the requisite fee is authorized herein for payment [37 C.F.R. §1.97(c)].
- ☐ after the mailing date of the Notice of Allowance, but prior to the payment of the issue fee, the requisite certification under 37 CFR §1.97(e)(1) is made herein, and the requisite fee is authorized herein for payment [37 C.F.R. §1.97(d)].
- ☐ with a Request for Continued Examination (RCE), and no fee is required [37 C.F.R. §1.97(b)(4)].

## FEE AUTHORIZATION

- ☒ Authorization is hereby given to charge any deficient fee(s) under 37 CFR §1.16 and §1.17 as necessary to ensure the consideration of this disclosure, or to credit any fee overpayments, to Deposit Account No. 503-121.
- ☐ Authorization is hereby given to charge the requisite fee of \$180 (Fee Code 1806) for submission of this Information Disclosure Statement to Deposit Account No. 503-121.

It is respectfully requested that this information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

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JCO6 Rec'd PCT/PTO 22 APR 2005

Information Disclosure Statement  
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The Examiner is further respectfully requested to return of a copy of the enclosed Form PTO-1449 with the Examiner's initials in the left column.

The examination and allowance of this Application is respectfully requested.

Respectfully Submitted,

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By: 

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Date: April 22, 2005

Attachment(s): PTO Form 1449  
International Search Report  
Cited References

10/532219

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**INFORMATION DISCLOSURE STATEMENT  
BY APPLICANT**

Attorney Reference: 122991-05050635

Applicant: **Kyu Seo HAN, et al.**Application Serial No. : **New application**Filing Date: **April 22, 2005**Date: **April 22, 2005**

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Examiner: **unassigned**Group Art Unit: **unassigned****U.S. PATENT DOCUMENTS**

Examiner's Initials*		Document Number	Date MM/DD/YYYY	Name (Family Name of First Inventor)	Class	Sub Class	Filing Date (if appropriate)
	AR	6,363,117	03/26/2002	Kok	H04N	7/12	12/31/1998
	BR	6,137,837	10/24/2000	Nemiroff, et al.	H04N	7/36	01/23/1998
	CR						
	DR						
	ER						
	FR						
	GR						
	HR						
	IR						
	JR						

**FOREIGN PATENT DOCUMENTS**

		Document Number	Date MM/DD/YYYY	Country	Translation Readily Available		English Abstract	
					Enclosed	No	Enclosed	No
	KR							
	LR							
	MR							
	NR							
	OR							
	PR							
	QR							
	RR							
	SR							
	TR							

**OTHER (Including in this order Author, Title, Periodical Name, Date, Pertinent Pages, etc.)**

	UR	Jo Yew Than, et al.; "Transactions Letters- A Novel Unrestricted Center-Biased Diamond Search Algorithm for Block Motion Estimation"; IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, Vol. 8; No. 4; August 1998.
	VR	Lurug-Kui Liu, et al.; "A Block-Based Gradient Descent Search Algorithm for Block Motion Estimation in Video Coding"; IEEE TRANSACTIONS ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, Vol. 6; No. 4; August 1996
	WR	
	XR	
	YR	
	ZR	

Examiner

Date Considered:

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP § 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.